

The Comparative Advantage of Juvenile Versus Criminal Court Sanctions on Recidivism among Adolescent Felony Offenders*

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This study addresses the longstanding and contentious debate on the merits of transferring cases from juvenile to adult court with the expectation of more certain, severe, or effective punishment. It compares the severity, certainty and celerity of sanctions for N=800 15- and 16-year-old adolescents charged with robbery and burglary in juvenile court in New Jersey with identical offenders in matched communities in New York State whose cases are adjudicated in criminal court, and determines the effectiveness of these sanctions in reducing recidivism and reincarceration. Results showed that incarceration rates were higher for adolescents sentenced in the criminal court, but sentence lengths were comparable. However, recidivism rates were significantly lower for adolescents sentenced in the juvenile court, regardless of sentence type or severity. The results suggest that efforts to criminalize adolescent offending may not produce the desired results and may in fact be counterproductive. There is no support for legislative efforts to eliminate the special jurisprudence for adolescent crimes or the separate jurisdiction for juvenile offenders.

I. OVERVIEW

There is a long-standing and contentious debate on the appropriate judicial forum for the adjudication and disposition of adolescent felony offenses. Critics suggest that juvenile court sanctions do not rehabilitate felony offenders, offer weak retribution for serious crimes, and are ineffective in deterring subsequent crimes (Wolfgang 1982; Wilson 1983; Feld 1993). They contend that the criminal court is the most appropriate forum for adjudicating juvenile offenders whose offense and behavior patterns mandate lengthy incarceration in secure facilities. Criminal court sanctions are viewed as according greater community protection, more effective

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deterrence of future crime, and more proportionate, retributive responses to serious crimes. The seriousness of many juvenile crimes suggests that these adolescents can be neither controlled nor rehabilitated in the juvenile justice system (Feld 1988).

Supporters of the juvenile court argue that violent juvenile crime is a transitory behavioral pattern, and that adolescent crime is unlikely to escalate to more serious or persistent crime (Hamparian, et al. 1978; Shannon 1985). They argue that adolescent offenders can benefit from the treatment services of the juvenile justice system with minimal threat to public safety and avoidance of the lasting stigmatization of criminal justice processing. Also, many proponents of juvenile justice processing of violent delinquents do not accept the criticisms of rehabilitative programs, arguing instead that weak evaluation research or poor program quality mask the natural strengths of juvenile corrections (Fagan 1990a; Lipsey 1992a, 1992b; Fagan & Forst 1996; Palmer 1994).

Unfortunately, little is known about the relative merits of transferring cases from juvenile to adult court with the expectation of more certain, severe, or effective sentencing (Farrington, Ohlin & Wilson 1986). The young offender in the adult court may appear less threatening to the criminal court than his or her older counterpart with a longer record and possible history of failures in less serious sanctions, inviting a more lenient response from the sentencing judge:

It is not at all certain that we gain increased deterrence, retribution, or incapacitation in this way. Youth committed by the adult court to adult prisons might become hardened and more, rather than less likely to offend again upon release. What is needed is much more careful research following comparable samples of offenders through these different experiences to provide better understanding and confident policies about the division of jurisdiction between the two courts, the relative effectiveness of the dispositional options they provide, and the efficiency of the criteria used to select offenders for differential processing and disposition (Farrington, Ohlin & Wilson 1986: 125, emphasis added).

There has been no systematic research on age-crime-sanction relationships to determine the optimal age threshold for assigning jurisdiction, or which judicial forum or type of sanction more effectively controls recidivism and safeguards the public. The literature on sentencing has generally not addressed the structural-contextual effects of court jurisdiction by comparing juvenile and criminal court sanctions. The few studies which have compared adolescent offenders in juvenile and criminal courts have relied on samples which were channeled from juvenile to adult jurisdictions, introducing selection biases into comparisons of the two types of proceedings. Such comparisons cannot be made via experimental designs comparing youth randomly assigned to criminal or juvenile court; they simply are not feasible. Instead, research to compare these alternative sanctioning systems must rely on quasi-experimental research designs to

compare similar youth handled in different systems, controlling for contextual or milieu effects such as urbanism, normative regional attitudes on crime and punishment, weapon availability, the prevalence of contributing or mitigating factors such as drug use, and contemporary statewide political influences from media and popular culture.

This paper examines these issues in a natural experiment to assess key issues in sentencing adolescent felony offenders. It compares the severity, certainty and celerity of sanctions for fifteen- and sixteen-year-old adolescents charged with robbery and burglary in juvenile court in New Jersey with identical offenders in matched communities in New York state whose cases are adjudicated in criminal court, and determines the effectiveness of these sanctions in reducing recidivism and reincarceration.

A comparison of the severity and effectiveness of juvenile and criminal court sanctions directly bears on the jurisdictional debate in several ways. First, there has been rapid change in statutes that determine the judicial forum to adjudicate felony crimes by adolescents. Since 1978, nearly every state has passed laws to restrict the jurisdiction of the juvenile court (Feld 1987, 1993; Szymanski 1987a, 1987b; Wilson 1994). Some states have lowered the age of jurisdiction for criminal court, either for all offenders or for selected offense categories. Other states have expanded the basis for transfer of cases from juvenile to criminal jurisdictions, either by expanding the criteria for transfer or shifting the burden of proof from the state to the defendant. Still others have established concurrent jurisdiction for selected offenses or offenders, giving prosecutors broad discretion in electing a judicial forum for the adjudication and sanctioning of adolescent crimes. However, there has been little systematic research to determine if the sanctions in criminal court are in fact harsher and more consistent, and if punishment as an adult results in less recidivism. The resolution of these questions bears on policy and legislation on the age threshold, offense or offender eligibility criteria for criminal court, and continuing efforts to redefine the jurisdiction of the juvenile court.

Second, the comparison of sanctions in juvenile and adult courts provides empirical evidence regarding a "leniency gap" in criminal court for young offenders whose juvenile records are not disclosed in criminal court proceedings (Greenwood, Abrahamse & Zimring 1984). Early research on juveniles prosecuted in criminal courts suggested that juveniles may appear less serious in the "stream of cases" (Emerson 1969) in criminal court in contrast to older, more experienced offenders. The juvenile usually has had less time to accumulate a record in the criminal justice process (Roysher & Edelman 1981), and accordingly, the most restrictive sentences are reserved for the older, more "dangerous" defendants. Also, the adolescent defendant's age may lead judges to impose less severe sanctions, due in part to the potential dangers of incarceration of youth in prisons.

But the offense-based criminal court also may be inclined to view *serious* juvenile crime as a threat to public safety and deserving of the most severe

sanctions. Research with chronic violent adolescents adjudicated as adults suggests that they indeed are treated with greater severity and more certain punishment compared to those retained in juvenile court (Rudman, et al. 1986; Podkopacz & Feld 1995). Though violent offenders in juvenile court are the most serious cases before the court, the traditional emphasis on rehabilitation, together with administrative and statutory limitations on sanction length or severity, suggests that they may be treated less harshly than similar youth in criminal court. Accordingly, this study compares the certainty, celerity, and severity of sanctions for adolescents charged with violent crimes and adjudicated in juvenile or adult court.

Third, the study examines a critical age-sanction threshold for violent crimes. Few empirical sentencing studies have focused on young offenders and optimal sanctioning patterns to reduce recidivism among this high-rate offender group. Thus, the considerable advances in sentencing research over the past decade may not be generalizable to a new, younger defendant class in criminal courts. Compared to decisions involving older offenders, criminal court judges presiding over cases involving defendants near the age of majority must make sentencing decisions without knowledge of critical factors such as prior criminal history, involvement with substances, or other salient social factors. Singer (1994) showed that such factors can be critical to the assignment of criminal responsibility at several decision points, including arrest, adjudication and disposition.

In these cases, judges instead must rely exclusively on the severity and context of the offense, any mitigating circumstances, and information developed in pre-sentence investigations of defendants' social ties. Moreover, to the extent that judges retain rehabilitative ideals in their sentencing practices, adolescent offenders may receive less severe sanctions, so they may benefit from non-custodial interventions to enhance their education, work, and family ties while addressing other problems such as problematic substance use or mental health. Accordingly, this research can inform sentencing policy through analyses of the relationship between sanction severity and recidivism, and develop base expectancy rates for the new class of juveniles appearing before the criminal courts.

Fourth, comparison of juvenile and criminal court sanctions reflects on the organizational context of legal decision making.¹ In particular, holistic and working group theories (Emerson 1983; Mather 1979) of legal decision making suggest that the "going rate" for juvenile crime is not any higher in the criminal justice process than in the juvenile court, and in fact may be lower. But this is contrary to the demands and expectations of the many legislatures who have passed laws relocating adolescent felony offenders to the criminal court. Like many other legal reforms, criminalizing delinquency may have unintended consequences, reflecting the social organization of the courts and processual contexts, rather than legal statute. By analyzing the possible determinants of sentences for juveniles charged with felony offenses in the criminal and juvenile courts, public policymakers

can plan more appropriately for legal reform. If bringing juveniles into the criminal court is a symbolic process for deterring crime, then it is important to determine whether these ends are better served in the less formal juvenile court where "they may provide the quickest relief to continuing harm" (Reiss 1985: 26).

II. THE EVOLUTION OF THE MODERN JURISDICTIONAL BOUNDARIES

A. HISTORICAL DISTINCTIONS BETWEEN JUVENILE AND CRIMINAL SANCTIONS

Since the first juvenile court was established nearly a century ago, society has maintained fundamental distinctions in its legal response to crimes committed by juveniles and adults. In the *parens patriae* philosophy, custody and punishment were secondary or ancillary goals in the pursuit of "remaking the child's character and lifestyle" (Rothman 1980). Whereas punishment involves the imposition of burdens (i.e., deprivation of liberty) on an individual, based on past offenses, for purposes of retribution or deterrence, treatment focuses on the present and future well-being of the individual rather than the commission of prohibited acts. Juvenile court dispositions were designed to determine why the child was in court, and what could be done to avoid future appearances (Feld 1987, 1993).

Disproportionate responses to comparable individuals were tolerated if underlying factors or mitigating circumstances were found. To prevent contamination of juvenile offenders by adult criminals, youth were detained and treated in separate facilities. The choice between jurisdictions is a choice between the nominally rehabilitative dispositions of the juvenile court and the explicitly punitive dispositions of the criminal courts (Whitebread & Batey 1981: 502).

Emphasis on the mitigating circumstances which contributed to the crime, and discovery of its appropriate treatment, also led to informality in both procedure and standards. Despite the due process reforms of juvenile court procedures pursuant to *In re Gault* (1967), the Supreme Court in *McKeiver* remained ideologically committed to the traditional "treatment" rationale of the juvenile court (*McKeiver v Pennsylvania* 1971 at 547).

The traditional separation of juvenile and criminal jurisdiction established an age threshold at which the young offender was to be held liable for criminal actions. Offenders up to eighteen years of age were excluded from criminal liability and were not held responsible for their actions. In effect, this was the statutory definition of childhood for purposes of selecting a judicial forum to adjudicate illegal behaviors. However, from its inception, juvenile court judges could waive young offenders to the criminal courts. Thus, legislators never held that *all* juveniles were not culpable nor appropriate for the benign ministrations of the juvenile court. Rather, the

earliest juvenile court legislation recognized that certain offenders were not amenable to the rehabilitative dispositions of the juvenile court. But the criteria or standards for determining the appropriate judicial forum for disposition of young offenders remain inconsistent across states (Hamparian, et al. 1982; Rudman, et al. 1986; Feld 1993).

Law and policy since the 1970s have sought to narrow the scope of the juvenile court. These efforts have focused on two criticisms. First, for adolescents whose behaviors threaten public safety, critics view the traditional goals of the juvenile court and the "best interests of the child" at odds with public concerns for retribution and incapacitation of criminals. Proponents of deterrence and incapacitation policies criticized the juvenile court as ineffective at controlling juvenile crime, particularly violent behavior. A series of damaging studies on the apparent weakness of rehabilitation programs negated the rehabilitative purposes of the juvenile court (Bailey 1966; Robinson & Smith 1971; Wright & Dixon 1975; Lipton, Martinson & Wilkes 1975; Sechrest, White & Brown 1979; Lab & Whitehead 1988). Moreover, the statutory limitations on punishment in juvenile court were assailed as inappropriate, given the public danger from juvenile violence.²

The second challenge to the separate juvenile justice system was a consequence of rapid increases in juvenile crime rates in the 1970s, especially violent juvenile crime. Serious and violent juvenile crime rose steadily from 1974 to 1979 (Strasburg 1984; Weiner & Wolfgang 1985), and again beginning in 1985 (Howell, Krisberg & Jones 1995). Increases in juvenile crime rates in these periods were noteworthy not only for the volume of offenses, but for their seriousness (Strasburg 1984; Wilson 1994; Howell, Krisberg & Jones 1995).

In response, recent legislation created a legal boundary between juvenile and adult jurisdiction that was contingent on an age-seriousness calculus (Feld 1993). That is, age boundaries are now mediated by specific behaviors – the fifteen-year-old offender who commits a violent offense may be held criminally responsible, while his or her cohort remains a juvenile if law violations are confined to misdemeanors. Or, the chronic fifteen-year-old misdemeanant may be remanded to the criminal court, distinguished from others solely on the basis of chronicity of offense. Thus, recent legislation reducing the age threshold for criminal liability creates an age-behavior gradient for legal definitions of childhood (Conrad 1981).

In sum, three criticisms motivated legislative action to narrow the jurisdiction of the juvenile court and relocate classes of adolescent offenses and offenders to the criminal court. First, sanctions in juvenile court appeared to be less certain or severe (or inappropriately lenient, based on crime severity) than in criminal court, creating the image of a "leniency" gap in punishment and retribution (Greenwood, Abrahamse & Zimring 1984; Greenwood 1986). Second, rehabilitative dispositions in juvenile court were ineffective in curtailing further crime and violence, as evidenced by growing

rates of juvenile violence throughout the 1980s (Howell, Krisberg & Jones 1995). Third, juvenile court sanctions posed risks to the public of (inappropriately) shorter terms of incarceration than the lengthy sentences meted out by the criminal courts.

B. COMPARATIVE SANCTIONS AND RECIDIVISM BETWEEN JUVENILE AND ADULT JURISDICTION

There has been little research to address the validity of these critiques. Whether the criminalization of violent juvenile crime has resulted in more certain or severe sanctions is not at all clear. Roysner and Edelman (1981) examined dispositions and placements under the New York Juvenile Offender Law,³ which relocated original jurisdiction to the criminal court for juveniles charged with violent crimes. They found that sanctions were no more severe in criminal court, and in many cases were actually less harsh. Howell, Krisberg, and Jones (1995) similarly found that youthful offenders (eighteen to twenty-five years of age) confined by the California Youth Authority for violent offenses were actually incarcerated longer than juveniles or adults sentenced to the (adult) Department of Corrections for the same crimes.

But Greenwood, Abrahamse, and Zimring (1984) found no evidence of a "leniency gap" for young offenders adjudicated and sentenced in criminal courts. Rudman, et al. (1986) found that sanctions in juvenile and criminal courts for juveniles charged with violent crimes were equally certain, but juveniles waived to criminal court received harsher sanctions, since there was no age limitation on sentence length for adult offenders. Bortner (1986), examining a broader offense range, found that juveniles do not receive longer sentences from the criminal court than they would in juvenile court. She found that the waiver (remand) process was viewed by juvenile court officials as a legal mechanism for staving off criticisms of the entire juvenile justice system (*ibid.*: 68).

Recent studies (e.g., Thomas & Bilchik 1985; Houghtalin & Mays 1991; Podkopacz & Feld 1995) found that juveniles sentenced in criminal court are treated more severely than in the juvenile court. Not only do they find that sanctions are harsher, but case attrition for juveniles in criminal court is actually lower than for adults. However, like other studies, the samples of juveniles in criminal court in these studies are selective and skewed toward more serious offenses based on prosecutorial screening (for concurrent jurisdiction cases) and judicial waivers. These processes occur in British courts as well (Great Britain. Home Office 1983). There, Crown Court judges were reluctant to impose more severe sanctions in remanded cases involving youth ages fifteen to twenty-one convicted of "indictable" (i.e., felony) offenses.

Comparisons of recidivism rates for adolescents adjudicated in juvenile versus adult court are extremely rare, and often limited by selection bias.

Podkopacz and Feld (1995) found that recidivism rates of adolescents waived to the criminal court were higher (58%) compared to those retained in the juvenile court (42%), but their analysis did not control for systematic differences in the two samples. Similar analyses by Bishop, et al. (1996) using a matched cases design show that youths transferred (by direct file or waiver) re-offended at a higher rate than non-transferred controls, despite more certain and severe incarceration sentences. Their careful matching procedure involved seven criteria. But they did control for geographical location, avoiding confounding of areal differences in re-arrest practices and criminal opportunities within the matched cases.

In sum, only these few studies have addressed the critiques of the juvenile court. Previous research on waiver has examined sanctioning patterns, but has been limited by sampling bias inherent in the transfer decision. There also is little empirical evidence that reductions in the age of majority have had a general deterrent effect on aggregate adolescent crime rates (Singer & McDowall 1988, for example). Finally, the rare tests comparing the deterrent or incapacitative effects of juvenile and criminal court sanctions for adolescent felony offenders have been severely limited by selection bias and other sampling artifacts that confound risk factors for recidivism with the criteria used in sorting adolescents for prosecution as juveniles or adults. Except for Bishop et al. (1996), no studies have compared the deterrent effects of sanctions in juvenile and criminal courts of specific, matched samples of legislatively strategic offense and offender groups of adolescent felony offenders. Most studies which have attempted to ascertain the deterrent effects of criminal court sanctions on juveniles have conceptualized deterrence broadly in terms of aggregate juvenile crime rates.⁴

Accordingly, the specific contribution of juvenile versus criminal court jurisdiction to the deterrent effects of sanctions has yet to be examined. Yet policy decisions and laws governing the age of jurisdiction have been made in the absence of valid empirical evidence that recidivism is better reduced by punishment in the criminal system. That gap is addressed in this research.

III. METHODS

This research compared the deterrent effects of sanctions and court jurisdiction on recidivism rates in juvenile versus adult court. Recidivism rates were compared for $N = 800$ youths in four matched counties. Sanction and recidivism rates for adolescents (ages fifteen to sixteen) charged in juvenile court with felony robbery and burglary in two northern New Jersey counties were compared with matched samples in matched counties in southeastern New York state, whose cases originate in the criminal court. The four counties are part of a large metropolitan area and regional

economy that shares demographic, social, and cultural commonalities. Both the concentration of risk factors for delinquency and crime problems among juveniles and young adults are comparable in the four counties.

A. SAMPLES

Two types of selection bias are relevant in this research: selection artifacts that arise when adolescent cases are purposively channeled from juvenile to criminal court, and biases introduced by the legal criteria demarking juvenile and criminal jurisdictions. For example, the waiver process reflects a selection process based on subjective interpretations of statutory criteria such as "amenability to treatment" and "dangerousness" (Eigen 1981a, 1981b; Bortner 1986; Rudman et al. 1986; Fagan, Forst & Vivona 1987; Feld 1987; Fagan & Deschenes 1990). Comparisons of offenders of consecutive ages that span legal statuses, where age alone determines court jurisdiction, invite distortion due to the age threshold that is precisely the rationale for demarking the two jurisdictions (see, for example, Gottfredson & Hirschi 1990). Comparisons within states often confound differences across local jurisdictions in charging and dispositional decisions (Singer 1994).

On the other hand, comparison of age-offender groups across jurisdictions is problematic because of the difficulty of controlling for differences in social and legal contexts (Hagan & Bumiller 1983; Myers & Talarico 1987). The contextual influences that shape case outcomes range from political influences on legal decision makers to normative regional attitudes on crime and punishment. Hagan and Bumiller (1983) explain the importance of controlling for such contextual or aggregative influences, including not only political influences on crime control policies, but socio-economic influences on rates of crime commission.

Offender cohorts from comparable if not identical offense and offender profiles are necessary to avoid these selection biases. The process of assignment to juvenile or criminal court should be independent of any consideration other than legislated jurisdiction.⁵ Comparisons would occur in a regional context where a legal division occurs in court jurisdiction, but within a socially and economically homogeneous area. These should be areas within regional economies and transportation systems, and where crimes reflect exchanges between smaller social areas within the region. This would control for such factors as economic opportunity, availability of weapons and other criminogenic influences (e.g., drug use, gang influences, physical environment).

1. Selection of Jurisdictions

Selecting jurisdictions and cases from the greater New York metropolitan area, including New York City and the highly urbanized northern

New Jersey counties, provides an opportunity for a natural experiment (Fagan 1990a). The counties of the region are interrelated economically, in transportation, media and culture, and in major social institutions, including universities, financial services and medical centers. Because of the elaborate transportation network, crime problems also are regional, and crime serves a redistributive function (Sullivan 1991). The unique legal context for juvenile offenders in New York state, combined with its contiguous location to the traditional jurisprudential setting for juveniles in New Jersey, allows for comparisons of legal jurisdiction with minimal selection effects due to spatial or individual differences.

Within states, cases were sampled from Essex and Passaic counties in New Jersey, and Kings (Brooklyn) and Queens counties in New York. The counties were selected from ten candidate counties in each state, based on census and crime data for each county. Counties were matched on social structural characteristics and crime problems that influence sanctioning rates for juvenile offenders (Sampson & Laub 1993). The matching procedure identified counties that differed by no more than 10% on key crime or socio-economic indicators. The matching criteria included crime and criminal justice, demographic, socio-economic, labor force, and housing characteristics. Criminal justice indicators for county matching included: the county's percent contributions to state prison commitments (for adults) and juvenile corrections commitments, felony juvenile arrests (under eighteen years of age) per one thousand population, total per capita arrest rates, and per capita law enforcement expenditures. Each county has local incarceration facilities for adults and juveniles, and each has a well-developed indigent defender system for juveniles and adults. See Fagan (1991) for detailed results of the matching procedure.

2. Selection of Offense Categories

Analysis of New York and New Jersey cases affords a two-year age range for comparisons of adolescent felony cases. Adolescents ages fifteen to sixteen charged with first- and second-degree robbery and first-degree burglary in New York were compared with similar juveniles in New Jersey.⁶ The offense categories selected were robbery and burglary. The age of criminal jurisdiction for all offenders in New York is sixteen, and thirteen for selected felony offenders under the Juvenile Offender Law. Thus, cases for fifteen-year-old defendants charged with felonies originate in criminal court and are subject to Juvenile Offender Law provisions for disposition. In New Jersey, the age of jurisdiction remains eighteen years of age, though transfer to criminal court is permitted at age thirteen for selected cases. In New York, cases alleging felony robbery (first- and second-degree) and burglary (first-degree) charges originate in criminal court, while in New Jersey they originate in juvenile court. Figure 1 shows the relevant criminal statutes which describe these offenses at the time the cases were sampled in

1981,⁷ and Appendix A provides additional information on the construction of the statutes in each state.

These charge categories reflect the specific offense types which were instrumental in the passage of the New York Juvenile Offender Law (Sobie 1981; McGarrell 1988), and represented a majority of the Juvenile Offender arrests in New York state in 1980–82 (DCJS 1982; Singer & Ewing

Figure 1. Comparison of New York and New Jersey Penal Code Chapters on Robbery and Burglary Offenses

	NJ	NY ¹	Both
Robbery 1°			
A person is guilty of Robbery 1° when, in the course of committing a theft, or in the immediate flight from, he:			
1. Inflicts (or causes serious) bodily injury;			X ²
2. Threatens with, or puts another in fear of, immediate bodily injury;	X		
3. Is armed with a deadly weapon;			X
4. Uses or threatens use of a dangerous instrument;			X
5. Displays what appears to be a firearm;		X ³	
6. Commits, or threatens to commit, any crime of the first or second degree.	X		
Burglary 1°			
A person is guilty of Burglary 1° if, with purpose to an offense therein, he enters or remains unlawfully in a building when (he):			
1. purposely, knowingly, or recklessly inflicts (or causes), or threatens to inflict (or cause), physical injury on anyone (who is not a participant in the crime);			X
2. Is armed with explosives or a deadly weapon;			X
3. Displays what appears to be a firearm;			X
4. Uses, or threatens to use, a dangerous instrument;		X	
and			
5. The building is a dwelling.		X	
1. New York includes a provision that prosecution for Robbery 1° does not constitute defense for, or preclude prosecution for Robbery 2°, Robbery 3°, or any other crime. The Burglary 1° statute is virtually the same as that for Burglary 2°, except that Burglary 2° adds a provision stating "it is an affirmative defense that such . . . firearm was not a loaded weapon . . . capable of producing death or other serious physical injury."			
Also in New York, the difference between 1° and 2° Burglary is <i>where</i> the event takes place. For Burglary 1°, the conditions listed above must be met <i>and</i> the offense must occur in a dwelling. For Burglary 2°, the conditions listed above must be met <i>or</i> the event must occur in a dwelling.			
2. In New York, a provision is added "to any person who is not a participant in the crime," that substitutes "causes serious" for "inflicts."			
3. However, in New York, the fact that such firearm is not loaded and cannot cause "death or serious injury" is an "affirmative defense."			

1986). They are recurrent criminological events which are paradigm cases representing two faces of the debate in defining juvenile jurisdiction (Feld 1993).⁸ Robbery events comprise the prototypical violent juvenile crime which has evoked fear of crime as well as legislative action in the past decade. Robbery also reflects the importance of violence to the debate on juvenile court jurisdiction (Feld 1987, 1988). The inclusion of burglary addresses the broader and more complex pattern of judicial responses to property crime observed in prior research on juvenile sanctions. Property offenders comprise a significant proportion of incarcerated juveniles in each state and also those waived to criminal court (Hamparian, et al. 1982).

3. Selection of Cases

A multi-stage cluster sampling procedure resulted in random samples of (N=200) offenders within each county during 1981-82. The 1981-82 period provided sufficient time for a significant proportion of the cohorts to have completed their sentences and accumulated at least four years of time at risk. Sampling parameters within age and offense categories were determined by the total population for the two charge categories combined in each county. Cases were selected after charges were filed in the court: at criminal court arraignment in New York, and upon filing of juvenile court petitions in New Jersey. This procedure avoided sample attrition at the outset from prosecutorial screening or dismissals prior to arraignment.

B. VARIABLES AND MEASURES

Variables for each case included prior charges, current charge, race, gender, age at first offense and sample offense, and case processing information such as detention status. Juvenile court records were not available for the criminal court cases. Case processing times were recorded to measure the celerity of sanctions. Sanction measures included the type and length of disposition: the imposition of fines or restitution, probation supervision, out-of-home placement, and incarceration sentences (minimum and maximum terms).⁹

Recidivism measures were constructed from subsequent juvenile and criminal history for all offenses recorded through 30 June 1989. This allowed for risk time of at least two years for all cases, including incarceration terms. Recidivism measures included arrests, charges, convictions, supervision or other non-incarcerative sanction, incarceration (training school, jail or prison), drug or weapon involvement in subsequent offenses. "Street" time for calculation of offending rates was reduced for subsequent convictions that resulted in incarceration terms. Estimates of time served were based on the same assumptions that were used to calculate sentence length in the sample case.

Criminal career variables (Blumstein, et al. 1983) were constructed to measure participation, timing and frequency of subsequent offending. These measures were disaggregated for several offense categories. To minimize known errors in official records, recidivism variables included multiple measures of officially recorded contacts with the law: timing of re-arrest, frequency of re-arrest and conviction, severity of re-arrest charge, and justice system penetration (see Maltz 1984). This strategy reduces potential error within official records from gross recidivism measures that do not afford internal consistency checks.

C. DATA SOURCES

In New Jersey, data collection for juvenile records (both for the sample cases and subsequent juvenile cases) was completed from juvenile court records in each court. Automated sources for court histories and case outcomes were obtained from the Unit Case Management System and from the New Jersey State Police. For New York cases, data for sample cases were recorded from the records of the New York City Criminal Justice Agency (CA), the pretrial services agency. Case outcome data were obtained from the Office of Court Administration (OCA) records for cases adjudicated as felonies, or from CJA for cases reduced to misdemeanors. Criminal history data for recidivism measures were obtained from the Division of Criminal Justice Services (DCJS).

IV. RESULTS

A. THE CERTAINTY AND SEVERITY OF SANCTIONS

Table 1 shows the case outcomes by charge and period.¹⁰ "Guilt" in the juvenile court is based on a sustained petition alleging a specific act and penal code section. The base rate of conviction was higher for burglary cases than for robbery cases. Regardless of court jurisdiction, nearly two in three burglary cases resulted in a guilty plea or conviction (finding), compared to about half the robbery cases. Robbery cases in juvenile court were less likely to result in conviction than robbery cases in the criminal court ($\chi^2 = 16.78$, $p = .000$). Even when waiver in New Jersey is combined with convictions, the rate of dismissal in juvenile court for robbery was significantly lower than in the criminal court.

Waived cases in the juvenile court sample were excluded from the recidivism analyses, creating the threat of selection bias.¹¹ There are overlapping characteristics for recidivism and waiver, especially prior record and current charge severity. Thus, we might expect waived cases to have a higher propensity for subsequent offending. Their exclusion would attenuate recidivism indicators for the juvenile court sample. To

Table 1. Case Outcomes by Court and Charge Type

	OFFENSE TYPE			
	Robbery		Burglary	
	Juvenile Court	Criminal Court	Juvenile Court	Criminal Court
N	367	340	32	68
Not Guilty	50.7	43.5	34.4	36.8
Guilty	46.0	56.5	65.6	63.2
Waived	3.3	0	0	0
Chi-square	16.78		0.05	
p	.00		.81	

estimate the effects of selection bias, a correction procedure was used similar to Berk (1983; see also Berk & Newton 1985). Differences between waived and retained cases were modeled using logistic regression, with offense and offender characteristics as predictors. The results showed that age, prior record, gender, race and current charge were unrelated to the waiver decision (results not shown). The overall model fit was poor ($p[\chi^2] > .05$) and the classification results were weak (fewer than 50% of the waived cases were correctly classified).¹² The results suggest that selection bias threats were negligible, and the exclusion of waived cases did not weaken the validity of the recidivism analyses. Moreover, the difficulty of modeling the waiver decision further illustrates the nonsystematic process of waiver decision making (Fagan, et al. 1984; Feld 1983; Fagan & Deschenes 1990).

Table 2 compares sanction probabilities by period and offense type for juvenile and criminal courts.¹³ Nearly half the defendants in criminal court convicted of either charge type were sentenced to incarceration, either in jail, adult prisons, or juvenile corrections facilities. The incarceration rates for robbery cases were significantly greater in criminal court than juvenile court: fewer than one in five (18.3%) juvenile court defendants were placed in a training school or residential facility. In criminal court, nearly half (46.4%) of those convicted of robbery were sentenced to either state prison, secure youth corrections facilities, or local jails ($\chi^2 = 36.1$, $p = .000$).

For burglary convictions, incarceration rates for juveniles were slightly higher (23.8%) than for robbery cases, but still were lower than the criminal court rate for burglaries (46.5%). Incarceration rates in criminal courts were similar for burglary and robbery cases (about 46.5%). For both types of charges, most juvenile court defendants received probation sentences (nearly six in ten), while fewer than half the criminal court defendants

Table 2. Sanction Severity by Charge Type and Court

	Robbery		Burglary	
	Juvenile Court	Criminal Court	Juvenile Court	Criminal Court
N	176	192	21	43
Disposition				
Incarceration	18.3	46.4	23.8	46.5
Probation	61.5	41.8	57.1	48.8
Restitution	0.6	—	—	—
Other Supervision	0.6	4.8	4.7	—
Suspended/Continued	18.9	9.9	14.3	4.7
Chi-square	36.10		5.77	
p	.000		.123	

received probation commitments.¹⁴ Suspended sentences or continuances (of previous probation sentences) were more likely in the juvenile than criminal court.

Table 3 examines sanction severity, as measured by sentence length. For those incarcerated, the minimum and maximum sentences are shown. For jail cases, the minimum and maximum terms were considered the same, although some defendants are released before their sentence. For commitments to juvenile corrections facilities in New Jersey, the minimum term was computed as either one year (for indeterminate three-year commitments) or one-third of the term for indeterminate commitments to the youth's nineteenth birthday. This is the interval when youths committed to the juvenile division of the state's Department of Corrections have their first parole eligibility. It also approximates the average length of stay at youth corrections facilities in New Jersey for all commitments during 1981–83 (Juvenile Delinquency Dispositions Commission 1986). For criminal court sentences to prison, both minimum and maximum terms are given at sentencing.

Results of analysis of variance (ANOVA) for both charge and court types in each period showed no significant differences in sentence length, by either charge type or court jurisdiction. The absence of significant interaction effects shows that the patterns were constant across charge types by court jurisdiction.

B. COMPARATIVE IMPACTS OF SANCTIONS ON RECIDIVISM

Recidivism measures are compared for juvenile and criminal court cohorts for each offense type. Table 4 shows analyses of recidivism rates,

Table 3. Sentence Length by Charge Type and Court

	Robbery		Burglary	
	Juvenile Court	Criminal Court	Juvenile Court	Criminal Court
Sentence (months):				
Maximum	34.35	31.74	33.60	30.72
Minimum	11.45	11.07	11.20	10.61
Significance: <i>p</i> (F)				
	Maximum		Minimum	
Charge	.870		.827	
Court	.596		.797	
Charge X court	.985		.964	

reincarceration rates, failure rates (time to first re-arrest), and offending rates. For robbery offenders, re-arrest rates were higher for cases adjudicated in the criminal courts ($\chi^2 = 6.757$, $p = .009$). However, re-arrest rates did not differ for burglary offenders by court jurisdiction. The pattern was similar for reincarceration. There were significant differences for court jurisdiction for robbery cases but not for burglary. Robbery cases in the

Table 4. Recidivism by Court Jurisdiction and Type of Charge

	Robbery		Burglary	
	Juvenile Court	Criminal Court	Juvenile Court	Criminal Court
Percent Re-arrested	67.0	75.9	81.3	80.9
Chi-square		6.76		.002
<i>p</i>		.01		.965
Percent Reincarcerated	40.9	56.2	65.6	55.9
Chi-square		16.56		.85
<i>p</i>		.00		.36
Time to First Re-arrest ^a	553.0	456.5	337.7	501.1
F		4.66		2.07
<i>p</i>		.03		.16
Re-arrest Rate ^b	1.67	2.85	2.27	2.73
F		11.24		.79
<i>p</i>		.001		.38

a. Days from release to street following court outcome and sanction.

b. Rate based on arrests per year of street time for offenders with at least one re-arrest.

criminal court cohort were reincarcerated more often (56.2%) than the juvenile court robbery cohort (40.9%) ($\chi^2 = 16.557$, $p = .000$).

Re-offending rates were computed for offenders with at least one re-arrest (for a new criminal violation).¹⁵ The re-offending re-arrest rates were calculated by annualizing total arrests over the time at risk during the follow-up period. Time reincarcerated was excluded from the re-offending "window."¹⁶ Once again, the patterns for re-arrest and reincarceration prevalence are mirrored for re-offending rates. Table 4 shows that there were significant differences in re-arrest rates for robbery offenders. Robbery offenders in criminal court had re-offending (re-arrest) rates over 50% higher than robbery offenders in juvenile court (2.85 versus 1.67 arrests per year at risk) ($F = 11.24$, $p = .001$). There were no significant differences in the rates for burglary offenders by court jurisdiction.

Failure time analyses present a similar trend for robbery offenders. In the juvenile court, the time to first re-arrest for robbery offenders was significantly longer (553 days) compared to those in criminal court (456.5 days) ($F = 4.662$, $p = .031$). For burglary offenders, there was no significant difference between juvenile and criminal court cases (the large disparity in the means is not significant due to the small Ns and large within-group variances).

The results present a consistent trend where the deterrent effects of sanctions on recidivism are greater for robbery cases in the juvenile court. For burglary offenders, the recidivism indicators are unaffected by court jurisdiction. That is, there is no comparative advantage in recidivism reduction for burglary cases disposed and sentenced in the criminal court. For robbery cases, the results at first glance suggest that there is a comparative advantage in recidivism for cases disposed in the juvenile court. Comparisons were then made to determine whether these effects remain after controlling for type of sanction. Since there were no significant differences in length of incarceration, these analyses did not control for sanction severity. The results are shown in Table 5.

1. Re-arrest Prevalence

There were significant differences in re-arrest prevalence only for robbery cases sentenced either to probation or incarceration terms. Nearly all those incarcerated in the criminal court for robbery charges were re-arrested (90.5%), compared to fewer than three in four sentenced in juvenile court (73.0%) ($p[\chi^2] = .013$). Fewer robbery offenders sentenced to probation in the juvenile court were re-arrested (64.4%) than in those sentenced in the criminal court (81.2%) ($p[\chi^2] = .011$). There were no significant differences in re-arrest prevalence by court jurisdiction for cases suspended or dismissed, and no significant differences for burglary offenders for any sanction.

Table 5. Re-arrest Rates, Offending Rates and Failure Times by Sanction Type, Arrest Charge and Court Jurisdiction

	Robbery			Burglary		
	Juvenile Court	Criminal Court	<i>p</i> ^a	Juvenile Court	Criminal Court	<i>p</i> ^a
N						
Percent Re-arrested						
Incarceration	73.0	90.5	.013	80.0	89.5	.569
Probation	64.4	81.2	.011	91.7	95.5	.654
Suspended	65.7	68.4	.840	b	b	
Dismissed	67.0	65.8	.811	81.8	60.0	.067
Days to First Re-arrest						
Incarceration	631.3	391.7	.002	381.3	465.2	.686
Probation	624.9	517.9	.247	281.9	353.9	.564
Suspended	397.5	322.1	.557	b	b	
Dismissed	527.5	480.9	.535	410.9	649.0	.335
Re-arrest Rate ^c						
Incarceration	5.46	4.17	.578	6.25	3.37	.024
Probation	1.21	1.99	.000	1.41	1.90	.387
Suspended	1.45	3.77	.002	b	b	
Dismissed	1.23	2.27	.000	1.61	2.98	.123

a. Statistics Percent re-arrested $p(\chi^2)$
Time to re-arrest $p(F)$
Re-arrest rate $p(F)$

b. Cell size less than 5; analyses were unstable.

c. Active offender only.

2. Time to First Re-arrest

Similar to analyses of re-arrest prevalence, failure rates (time to first re-arrest) differed significantly only for robbery offenders who were incarcerated.¹⁷ The time to first re-arrest for robbery offenders who were sentenced to incarceration in juvenile court was over 50% longer than robbery offenders sentenced in criminal court (631 versus 392 days) ($p[F] = .002$). There were no significant differences for any other charge-court jurisdiction analysis.

3. Offending Rates

Annualized re-arrest rates for robbery offenders did not differ significantly for incarcerated offenders. For non-incarcerative sanctions, re-arrest rates were consistently lower for robbery offenders sentenced in the juvenile court. The results were significant and substantively large. Annual re-arrest rates for robbery offenders sentenced in criminal court were more than

75% greater than those sentenced in juvenile court. Only for burglary offenders who were incarcerated were re-arrest rates lower for offenders sentenced in criminal court (3.37 re-arrests/year versus 6.25) ($p[F] = .024$). Other re-arrest rates for burglary offenders did not differ significantly by type of sanction.

C. THE EFFECTS OF SENTENCE LENGTH AND COURT JURISDICTION ON RECIDIVISM

To determine whether sentence length influences recidivism rates, we estimated a competing risks model of the hazard of re-arrest using Cox regression procedures (Cox 1972; Efron 1977; Allison 1984; Greene 1990). Hazard models have been used frequently in analyses of correctional interventions (see, for example, Smith & Akers 1993; Visser, Lattimore & Linster 1991; Visser & Linster 1990; Schmidt & Witte 1988; Gruenwald & West 1989; Lattimore & Linster n.d.; Lattimore, Visser & Linster 1995). The analyses of failure times in Table 5 estimated differences in group means for those who have at least one re-arrest. This provides an incomplete picture of the differences between groups, failing to consider temporal patterns of recidivism, including those who fail *and* those who do not (i.e., those who "survive" until the end of the follow-up period). In contrast, hazard models estimate the probability that an individual will fail during a given time period. Hazard analyses simultaneously estimate the likelihood of two dimensions of recidivism: its prevalence during a given time period, and the interval until re-arrest occurs. The Cox procedure permits testing of specific hypotheses by including covariates in the model and testing for their significance against a model with no predictors.¹⁸

The competing risks hazard model is appropriate for analyses when the occurrence of one type of event removes the individual from the risk of other event types (Allison 1984). That is, the person is censored from the analysis of a second type of event at the point in time when the first event occurs. Each event type is analyzed separately and has its own hazard function.¹⁹ The overall hazard function, $h(t)$ is simply the sum of all the type-specific hazard functions (ibid.: 46). This procedure also allows for estimating different types of models for different types of risk, or separating models where the occurrence of each type of event may have a different causal structure. In this case, we estimate different models to test whether the deterrent effects of sanctions vary by type of crime.

Accordingly, we examined the effects of juvenile court jurisdiction (controlling for the length of incarceration sentences) on failure times for four types of crimes.²⁰ In the first phase, we estimated a proportional hazard model for any arrest. In the second phase, we distinguished violent and nonviolent crimes. In the third phase, we distinguished among types of nonviolent crimes: felony property crimes, misdemeanors, and drug offenses. The models included an interaction term of court by sentence

length to isolate the possible within-court effects of longer sentences. For offenders who received non-incarceration sentences, their sentence length was set to zero. The interval ranged from two to seven years. The results are shown in Table 6.²¹

The model for any re-arrest (Model I) was significant ($\chi^2 = 16.2, p = .023$). The significant negative coefficient for court indicates that adolescents sentenced in the juvenile court had lower hazards of (or risk of) re-arrest, after controlling for sentence length. The $\text{Exp}(B) = .71$ for COURT suggests that the hazard of re-arrest was in fact 29% lower than the hazard for adolescents sentenced in the criminal court.²² Among case and offense characteristics, only prior record (PRIORS) was significant. The $\text{Exp}(B)$ for PRIORS indicates that each additional prior arrest in the individual's criminal history is associated with a 3% increase in the hazards of re-arrest. This effect is proportional, and holds true for all cases at all times at risk following release after being sanctioned.²³ The interaction term that tests for the effects of sentence length within courts is not significant. Age was not significant, but recall that age varied only between 15 and 16 years.²⁴

Accordingly, the effects of juvenile court seem to be independent of sentence length, and increasing terms of confinement offer no comparative advantage in controlling recidivism among adolescent felony offenders. The comparative advantage of juvenile compared to criminal court case sanctions is statistically significant and quite substantial.

Model II compared hazard functions for violent with nonviolent crimes. The coefficients and model statistics for VIOLENT re-arrests were similar to Model I, with the addition of a significant interaction term. The interaction indicated that hazards of a first re-arrest for a violent crime were lower for adolescents sentenced to incarceration terms in juvenile court, after controlling for all court jurisdiction. The model for NONVIOLENT offenses was not significant. Accordingly, juvenile court sanctioning offers comparative advantages in reducing the risks of re-arrest for violent crime but not other crimes.

In Model III, the nonviolent crimes are further broken down. The hazard model for OTHER FELONY offenses, primarily burglary and larceny, was not significant. The model for misdemeanor offenses was significant, and again there were large significant effects that suggest a comparative advantage for juvenile court processing. The $\text{Exp}(B) = .40$ suggests that the hazard of a first re-arrest for a misdemeanor was far lower for youths sentenced in the criminal court. However, the model for DRUG offenses indicates a significant advantage in reducing hazards when adolescents are adjudicated in the criminal court. The model was significant, and the $\text{Exp}(B) = 2.75$ suggests a large effect for the relatively small group of fifty-one offenders whose first re-arrest was a drug offense.

It is the consistency of the results in Table 6 that depicts the substantial comparative advantage of the juvenile court in controlling recidivism. Even when disaggregated by types of crime and controlling for prior record and

Table 6. Competing Risk Proportional Hazard Model for Time to First Re-arrest by Type of Crime and Court Jurisdiction, Controlling for Sentence Length (Coefficient, Exponentiated Coefficient)

	Model I			Model II			Model III					
	B	Any Re-arrest Exp(B)	B	Violent Exp(B)	B	Non-Violent Exp(B)	B	Other Felony Exp(B)	B	Misdemeanor Exp(B)	B	Drug Exp(B)
Age	-.02	.98	-.07	.93	.05	1.05	.05	1.06	.12	1.13	-.07	.93
Case Length	-.001	.99	-.001	1.00	.0003	1.00	-.0001	.99	.001	1.00	.001	1.00
Burglary	-.03	.97	-.16	.85	.30*	1.36	.61**	1.85	-.14	.87	.18	1.20
Priors	.03*	1.03	.04*	1.04	.04*	1.04	.01	1.01	.03	1.03	.02	1.02
Sentence Length	-.002	.99	.001	1.00	-.0001	.99	.0001	1.00	-.0004	.99	.001	1.00
Court	-.34***	.71	-.33*	.72	-.09	.91	.22	1.25	-.91***	.40	1.01**	2.75
Sentence x Court	.0002	1.00	-.001*	.99	.0001	1.00	-.001	.99	-.0002	1.00	.001	1.00
<hr/>												
N Arrested	587		227		360		166		131		51	
% Arrested	72.5		28.0		44.4		20.5		16.2		6.3	
-2 Log Likelihood	4849.5		2950.5		4606.2		2172.9		1692.2		650.3	
Chi-Square	16.2		20.9		13.9		13.3		30.4		44.2	
p (Chi-Square)	.023		.004		.053		.0662		.0001		.0000	
<hr/>												
Court: 1 = Juvenile Court, 2 = Adult Court												
Significance: * = $p < .05$ ** = $p < .01$ *** = $p < .001$												

Court: 1 = Juvenile Court. 2 = Adult Court

Significance: * = $p < .05$ ** = $p < .01$ *** = $p < .001$

sentence severity, the hazards of re-arrest for adolescents are far lower when they are sanctioned by the juvenile court compared to the criminal court. Of course, there may be competing explanations that reflect the differences between the two jurisdictions. These may include differences in patrol practices, arrest probabilities, the distribution of criminal opportunities, and the salience of social controls in the New Jersey communities. However, the matching procedures for the counties were designed to minimize differences in these exogenous effects. Accordingly, the contrast of court cultures and statutory contexts within one structurally integrated metroplex suggests that the allocation of effects should tip strongly toward differences in the jurisprudential forums.

V. CONCLUSIONS

Since 1975, legal and social institutions throughout the United States have mobilized to strengthen the punitive element of legal sanctions for adolescent offenders. Two widely held perceptions fueled these legislative efforts: that rehabilitation is ineffective, undermining the *sine qua non* of the juvenile court, and that punishment was discounted in the juvenile court setting. States have applied a variety of statutory mechanisms to "criminalize" adolescent crimes by bringing them under the jurisdiction of the criminal courts. These efforts have included expanded use of judicial waiver as well as statutory exclusion (legislative waiver) of classes of juvenile offenders from juvenile court jurisdiction.

The trend to remove juvenile cases to the criminal court represents a legislative and societal rejection of the *parens patriae* philosophy of the juvenile court, its emphasis on rehabilitation and individualized justice, and the effectiveness of its dispositions in controlling the recurrence crime or its initiation. Despite increasing emphasis in the juvenile court on the punitive dimensions of dispositions, especially for violent offenders (Fagan 1990b; Feld 1987), efforts to relocate adolescent crimes have been fueled by the expectation of greater accountability (more certain and proportionate punishment) and lengthier sentences in the criminal court. For many proponents of the criminalization of delinquency, these efforts also promised more effective punishment, and lower recidivism rates.

The results of this study suggest that none of these promises has been fulfilled. Earlier efforts examining the relative likelihood of punishment in juvenile versus adult courts (Greenwood, Abrahamse & Zimring 1984; Roysher & Edelman 1981; Singer 1993) concluded much the same. This effort went two significant steps further, to examine sentence lengths and recidivism. If more certain, swifter and effective punishments are not forthcoming for adolescents punished in the adult criminal courts, new questions are raised concerning efforts over the past decades to narrow the jurisdiction of the juvenile court. These issues are discussed below.

A. BY WHAT STANDARD SHOULD JURISDICTION BE DEFINED?

Implicit in these trends is the stubborn perception that juvenile court dispositions are more lenient, less certain, fail to rehabilitate, are ineffective deterrents to future crime, and accordingly increase threats to community safety. In this view, not only does the criminalization of delinquency afford greater retribution and proportionality in punishment, but also more effective punishment that will better deter future criminal behavior.²⁵ That is, the shift of cases by whatever mechanism to the criminal court carries with it the expectation that punishment will be swifter, more certain and severe, and more effective as a crime control strategy.

Even those who acknowledge the uncertain deterrent effects of criminal court sanctions suggest that removing adolescent crimes to the adult courts avoids the counterdeterrent effects of weak sanctions of the juvenile court. The symbolic component of strong rhetoric surrounding the criminalization of juvenile crime also implied a general deterrent component designed to persuade juveniles that to commit crimes risked severe legal responses, including lengthy terms of incarceration (Singer & McDowall 1988; McGarrell 1988).

Unstated in this debate on the appropriate jurisprudential forum for adolescent crime are decision standards to assess the wisdom and efficacy of the criminalization of delinquency. Dimensions of the debate, such as due process and equal protection gaps between juvenile and criminal court, are sideshows to the central controversy of crime control strategy. Nor is this debate about rehabilitation versus punishment, for there is nothing inherently at odds in the modern juvenile court between treatment and accountability or punishment (Feld 1987, 1991, 1993; Weisheit & Alexander 1988).

Rather, the debate has unfolded in terms of punishment, community protection, and its effectiveness as crime control strategies (Fagan 1990b; Feld 1993). If the impetus for removal of adolescent felony offenders is to close the "leniency gap," criteria for evaluating court reform would include the certainty and severity of punishment. If juveniles have been relocated to criminal court to enhance the deterrent effects of legal responses to juvenile crime, or to reduce the risks to the community from adolescent crime, then recidivism rates are a more appropriate standard.

Standards also are unstated with respect to specific versus general deterrence of crime. Certainly, the rhetoric and symbolism of these "reforms" have been directed at deterring adolescents as a class from crime commission by raising the perceived certainty and severity of punishment (Bortner 1986; Singer & McDowall 1988). Yet criminal court punishments for adolescents, like their older cohorts, are accorded to individuals, usually within a discretionary sentencing scheme with broad boundaries that govern the upper and lower limits of confinement. For example, waiver statutes rarely achieve more than a symbolic role in reform, limited from larger

impacts by their low base rate and uncertain outcomes in the criminal court (Fagan & Deschenes 1990; Champion & Mays 1991). Accordingly, despite the widespread publicity for "get tough" measures targeted at adolescent offenders, their effects are difficult to measure at the aggregate level, and their application within a system of individualized justice suggests that they be assessed by their specific deterrent effects.

B. WHAT IS GAINED AND LOST IN CRIMINALIZATION

The comparison of closely matched states and offender cohorts in juvenile and criminal courts suggests that there may be a negative return from criminalizing adolescent crime. The effects on case outcomes may actually be quite the opposite from what was intended, and subject to exogenous factors that influence the makeup of court caseloads and salience of classes of offenses. Accountability for adolescent offenders in criminal courts was significantly greater than in the juvenile court, as evidenced by the higher conviction and sentencing rates. However, criminal court punishment was not a more effective strategy for crime control. Quite possibly, more harm than good resulted from the effort to criminalize adolescent crimes.

Convictions were higher in the criminal court for the 1981–82 cohorts, and conviction rates for adolescents remained stable over the next decade as drug crimes paralyzed the criminal courts in New York (Belenko, Fagan & Chin 1991). Punishment was less swift (one hundred days to sentencing in juvenile court, compared to 145 days in criminal court). The likelihood of a severe sanction (deprivation of liberty through incarceration) was greater in the criminal court. But instead of the relatively swift half-life of juvenile court cases, criminal court cases took months longer to resolve. Neither retributive nor incapacitative effects were greater in the criminal court: for those sentenced to incarceration, sentence lengths were nearly identical. Long sentences were rare for both the juvenile and criminal court cohorts in this study.

Comparing overall crime rates for the 1981–82 cohorts, recidivism rates appeared to be higher for criminal court cases, their re-arrests occurred more quickly, and their return to jail more likely. Recidivism among the juvenile court cohort also appeared to be no more serious than the criminal court cohort. Rather than affording greater community protection, the higher recidivism rates for the criminal court cohort suggest that public safety was in fact compromised by adjudication in the criminal court. Moreover, the data hint that increasing the severity of criminal court sanctions may actually enhance the likelihood of recidivism.

By neither public safety nor punishment (or just deserts) standards can claims be made that the criminal justice system affords greater accountability for adolescent felony offenders or protection for the public. If criminalization is intended to instill accountability, its effects are diluted by the lengthier case processing time. If it is intended to protect the public by

making incarceration more certain and terms lengthier, it fails also on this count. While these processes may have symbolic value to the public, they seem to offer little substantive advantage in the legal response to adolescent crimes. It is only for the earlier accumulation of a criminal record, leading to lengthier terms and more severe punishments for subsequent offenses, that there is a marginal gain in the relocation of adolescent crimes to the criminal court.

C. STATUTORY IMPLICATIONS

The results suggest that efforts to criminalize adolescent offending, or to narrow the scope of the juvenile court to exclude these offenses, may not produce the desired results and may in fact be counterproductive. Accordingly, two primary policy implications are derived from this research. First, there should continue to be both a special jurisprudence for adolescent crimes and a separate jurisdiction for juvenile offenders. Second, the current trajectory of juvenile court reforms should continue. These reforms have increased the emphasis on proportionate and certain punishment while attending to due process considerations of offenders who now are liable for significant intervals of punishment.

1. *Maintain a Special Jurisprudence of Adolescence*

This research offers no empirical support for claims that adolescent felony offenses should be removed from the jurisdiction of the juvenile court. In fact, there are other reasons not to do so. For example, Freeman's (1992) survey of adolescent males in Boston suggests that involvement of adolescents in the criminal court, with its public records and lasting stigmatization, severely limits their future labor market participation. The erection of barriers to legal work for young males in effect steers them toward illegal work as an income-generating choice. Moreover, the uncertainties of criminal court responses may have a counterdeterrent effect on offending behavior. The negative impact of criminal court sanctions on adolescents suggests the importance of labelling processes on subsequent behavior.

The emerging model of the juvenile court offers a jurisprudential forum that matches the expectations of proponents of the criminal court model while retaining the advantages of the separation of juvenile crimes and the shield for those juveniles whose criminality desists as they approach adulthood. Transfer, or waiver, from juvenile to criminal court remains as a viable option for specific types of cases that require a response beyond the limits of juvenile justice or juvenile corrections.

However, transfer is a process that itself is uncertain and unevenly applied (Fagan & Deschenes 1990; Feld 1988; Champion 1989; Lemmon, Sontheimer & Saylor 1991), and that in fact may provide less accountability

than retention in the juvenile court. To make transfer an effective outlet for cases that exceed the boundaries of juvenile court responses, important reforms are needed to reduce disparity in the use of transfer (Forst, Fagan & Vivona 1987) and to establish legal standards and criteria for transfer decision-making (Grisso, Tompkins & Casey 1988) that avoid the vague terminology of "amenability" and "dangerousness."

2. *Maintain the Current Trajectory of Juvenile Court Reforms*

Efforts to narrow the jurisdiction of the juvenile court reflected criticisms not only of its ineffectiveness, but also of the constitutionality of its proceedings. Both equal protection and due process concerns were addressed in U.S. Supreme Court decisions that formalized juvenile court proceedings. Other concerns reflected doubts about the juvenile court as an institution of social control. The evolution of the juvenile court over the past decade attempted to strengthen the juvenile court response to adolescent crimes by making punishment both more certain and severe. The quest for more proportionate punishment to reflect the severity of crimes and perceived threats to public safety from serious juvenile offenders led to changes in the going rates of punishment in the juvenile court.

The lower recidivism for juveniles sanctioned in juvenile court argues against the current trend to restrict the jurisdiction of the juvenile court. But this does not argue against the continuation and stabilization of procedural reforms. As discussed earlier, research on waiver decisions and statutes suggests informality and vagueness that challenges the commitment to fairness and equal protection. Waiver is an area where continued legislative attention is needed, not only to reinforce the boundaries and conditions for transfer of jurisdiction, but to the operational definitions and statutory criteria that inform these decisions. Proportionality of punishment also is an area where continued refinement can address both constitutional and conceptual issues in the legal response to juvenile crimes. The convergence of social learning and deterrence theories (Akers 1990) suggests that juvenile court sanctions should reflect both proportionality and certainty while maintaining the separation of juvenile jurisdiction and the continuation of a therapeutic and reintegrative component to juvenile court interventions.

D. SOME CAUTIONS AND AN AGENDA FOR FUTURE RESEARCH

The limitations of this research suggest directions for future efforts to clarify these issues. Our study was a natural experiment comparing two jurisdictions using matched counties and cohorts, and suggests that these issues are amenable to empirical inquiry. Obviously, replications of this effort are needed, both within the study sites with new cohorts, and in other sites. The sites for this study were chosen because of their proximity in area and the contrasts in jurisprudential boundaries. But the New York site

represents a unique and, in some ways, an extreme example of statutory approaches to separate the jurisprudential boundaries. Also, the unique contributions of the drug crises of the 1980s in New York (Fagan & Chin 1990) to offending opportunities and rates further complicates the comparisons of offending propensities.

However, the strengths of the study also address limitations of previous research. Comparisons of waived and retained juveniles reflect systematic biases inherent in the waiver decision. Comparisons across jurisdictions that are non-adjacent reflect regional and contextual differences in crime problems and normative attitudes on justice and punishment. Comparative research that does not control for age risks introducing biases inherent in differing age-offense distributions. But an age range that is too narrow (e.g., examining only one age) risks Type II errors from failing to consider adjacent age categories with different developmental sensitivities and thresholds for punishment. Comparative research based on within-state law changes risks both period effects and covariation with legal socialization processes accompanying the law change.

Accordingly, although replications of this effort require experimental conditions that are difficult to establish, this design may be optimal for comparing the effects of sanctioning context on recidivism.²⁶ Failure to control for location and composition of the offender cohorts, while creating the independent variable of jurisdictional differences, introduces unacceptable biases or constraints on the results. To strengthen the results of this study, it should be replicated with current offender cohorts that have been exposed to different contexts of offending, court contexts, and correctional settings. Replications across jurisdiction must carefully control not only for the context of legal decision making but also for the social contexts that influence crime opportunities and offending rates.

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NOTES

1. The process of determining guilt or innocence for the juvenile may be secondary to the determination of the appropriateness of punishment in the criminal justice system. This follows the observation of Mather (1979), Emerson (1969), and others who point out that official decisions are not simply made on the basis of guilt or innocence. Rather, they involve a process of negotiation whereby sanctions are set by expectations of what the offender deserves.

2. This is tantamount to the quarantine of persons with deadly and easily transmitted diseases (Von Hirsch 1987). That is, we justify the abandonment of the logic of the juvenile court when necessary to avoid an intolerable level of crime (Robinson 1988). We tolerate quarantines, according to Von Hirsch, in order to limit the harm to others, and that safety is paramount to concerns of justice, or when the stakes are high enough (1987: 68). The argument is that if we limit punishment (in the juvenile court), we are compromising crime prevention goals. The weakness of this argument is twofold. First, we would have to use indefinite punishments to avoid the emergent threat. That is, a shorter term of punishment only eases the putative threat, but does not eliminate it. Second, the prediction of future crimes when released (presumably earlier in the juvenile court) by whomever we select for additional punishment rests on shaky scientific grounds (Von Hirsch 1988).
3. In 1978, New York State enacted legislation that placed original jurisdiction to the criminal court for specific felony offenses committed by youths below 16 years of age. This statute was known as the Juvenile Offender Law, and the offenders it covered were called "J.O.'s" (see Singer & McDowell 1988; Sobie 1981; and Singer & Ewing 1986). Singer (1994) also found wide differences in the selection of jurisdiction for juvenile offender cases, with judges often electing to use the "transfer back" provisions to return J.O. cases to the juvenile (family) court. Variation in the return rates was attributable to bureaucratic variation, differences between courts in local cultural norms regarding juvenile crime, geographic and structural variation between counties, the criminal courts' working group structures as tightly or loosely coupled systems, the severity of juvenile offender cases in the overall stream of cases, discretionary decision making that assigns varying weights to family and other social characteristics, and practical fiscal considerations.
4. See, for example, Jensen and Metzger (1994); Singer and McDowell (1988).
5. These comparisons cannot be made by experimental designs, since social experiments are simply inconsistent with the mandates of the legal agencies which would be required to implement them.
6. The statutes for New York and New Jersey describing robbery and burglary, and the grading procedures, are attached. A "template" was constructed to reconcile grades between the two states. Also, we assigned priority in sampling to cases with charges of armed robbery and more serious grades of burglary, and included robbery second-degree offenses only where the statutory language invites matching with validity in terms of such objective factors as weapon use or injury.
7. They share definitions and codified behavioral descriptions regarding injury or loss. Moreover, the statutes in each state permit transfer of jurisdiction, providing opportunities for further comparisons of intra-state disparities.
8. Violent juvenile crime has been a focal point of controversies on the future of the juvenile court (Miller & Ohlin 1984). Juvenile violence was the driving force behind "get tough" legislation in New York in 1976 and again in 1978 (McGarrell 1988). Critical arguments to restrict the juvenile court have cited persistently high rates of juvenile violence as evidence of the failure of rehabilitation (Feld 1993).

Burglary, particularly repetitive residential burglary, presents unique problems in sanctioning in the juvenile courts. Since it poses less threat to public safety than other violent crimes, burglary events often evoke a lighter sanction, only until several court appearances for burglary have been logged. Then, last resort options, including both waiver to criminal court and incarceration in state (juvenile) training schools, are invoked when prior interventions or sanctions appear ineffective (Hamparian, et al. 1982). Thus,

- while the statutes and policy specifically acknowledge the seriousness of burglary, they tend to be treated quite differently by the courts until the threshold for incarceration is reached.
9. To measure actual sentence length for incarceration sentences, we estimated time served as one-third of the commitment. This estimate was based on aggregate data on length of stay in New Jersey Department of Corrections juvenile facilities for 1981-83. In New York, sentences to either Department of Corrections facilities or commitments to Division for Youth facilities (as youthful offenders) were stated with minimum and maximum terms. To calculate sentence length, we used the minimum sentence. This again was based on length of stay information provided by the New York State Department of Corrections for inmates received in 1981-83 who were less than nineteen years of age. Additionally, sentences were standardized within the sample for both maximum time and time served, providing a correction for inter-state differences in paroling and early release practices.
 10. In addition to findings of guilt, a small percentage of "miscellaneous" outcomes also were noted in the criminal courts. These included transfers to probate courts for mental health hearings, suspensions and continuances, etc. For this analysis, these were included broadly as "not guilty" findings. In later analyses of recidivism, they are treated separately.
 11. Twelve (3.3%) robbery cases in the New Jersey sample were waived; none of the burglary cases was waived.
 12. Results not shown, but are available from the author.
 13. Cases waived from juvenile to the criminal court were excluded from these analyses.
 14. Split sentences including both incarceration and other punishments (e.g., probation, fines or community treatment) were classified as incarceration sentences. Sentences to time served (with no additional time) or suspended sentences were not classified as incarceration sentences. Nearly all these cases were placed on probation, and were classified as such.
 15. Excluding traffic violations.
 16. Incarceration times for subsequent convictions were determined using the same procedures for calculating minimum sentences. Suspended sentences were not included in the calculation of subsequent incarceration times. Sentences to time served were estimated by computing the interval between the re-arrest date and the sentencing date for the re-arrest event.
 17. Failure times were calculated as the interval from sentencing on the sample charge to the date of first re-arrest, excluding time served (minimum sentences).
 18. In the special case of the proportional hazards model, the time function is neither specified nor estimated thanks to the partial likelihood estimation procedure. The model assumes that the risks for all cases are simple multiples of the baseline function, and the coefficients thus represent the change in the relative risks of failure (in our case, re-arrest) associated with a unit change in the independent variable in question. The partial likelihood test used in Cox regression constructs a likelihood function depending upon the unknown parameters and the observed data (Cox 1972), and then finds parameter values that maximize this function based only on those cases that are uncensored (Allison 1984).
 19. The type-specific hazard rate is defined as:

$$h_j(t) = \lim_{s \rightarrow 0} P_j(t, t+s)/s$$

where there are m different types of events and $j = 1, \dots, m$.

Let $P_j(t, t+s)$ be the probability that event type j occurs in the interval between t and $t+s$, given that the individual is at risk at time t . In this model,

continuous time methods are most appropriate since the exact date of the re-arrest is known.

20. Violent crimes included homicide, manslaughter, both felony and misdemeanor assaults, robbery, rape, kidnap, and weapons offenses. Property crimes included felony and misdemeanor larceny, auto theft, and burglary. Misdemeanors included all other penal code violations except drug offenses. Drug offenses included sale and possession, both felonies. Thus, when estimating a model for re-arrest for violent crimes, persons whose first arrest was for a non-property crime are treated as censored at the time of that arrest. If the first arrest is for a non-property crime, then that person is no longer at risk for committing a violent crime. The model assumes that types of re-arrest are exclusive or independent; that is, the occurrence of one event lowers the probability of another event to zero. This may seem like an arbitrary example, since arrest for one type of crime may raise or lower re-arrest probabilities for other types but certainly not eliminate any possibility of another type of arrest. But in this study, we focus on the type of first re-arrest because of the significance of the violence for public policy regarding jurisdictional transfer. It is relevant also because we assume that offense types are exchangeable and that a re-arrest for one type marks the resumption of criminal activity that ultimately will involve several types of crime (see, for example, Gottfredson & Hirschi 1990; Kempf 1986). In addition, Allison (1984: 50) notes that models assuming independence are indistinguishable from models assuming dependence, and that their interpretation is highly controversial.
21. A selection "hazard" (Berk 1983) was included in the models to account for the exclusion of waived cases in the New Jersey sample. The model results were unaffected by the inclusion of the selection parameter. It was not significant, and model results did not differ when the selection parameter was excluded (results not shown; data available from the author).
22. The exponential coefficients ($\text{Exp}(B)$) for each independent variable indicate the percentage change in the hazards of re-arrest associated with a unit change in that independent variable.
23. In a separate analysis not shown here, we re-estimated hazard functions for the model stratified by the variable for juvenile court, and found that the hazard functions for juvenile and adult court are truly proportional. A figure that compares the log-minus-log survival plots for the two categories is available from the author.
24. Age was included in the model only after the assumption of proportionality of hazards was verified for the two age groups by comparing the log-minus-log survival plots for the two age categories. Data are available from the author.
25. Of course, the juvenile court has always used its option for waiver as a political weapon to maintain its discretionary powers inherent in the *parens patriae* philosophy (Bortner 1986). By jettisoning its most intractable and serious offenders, who symbolize the perceived failures of the juvenile justice system, waiver provides an important symbolic act that demonstrates the court's wise use of its discretion to invoke punishment where necessary. This outlet also allows the court to maintain its legal and social boundaries and preserve its limited rehabilitative resources for youths whose crimes pose less threat to the community.
26. An experimental design, with random assignment of offenders to criminal and juvenile jurisdiction, is not feasible. Nor are sentencing experiments feasible where offenders are randomly assigned to punishments in juvenile versus adult corrections systems. These comparisons may also have weak face validity, since the sentencing decision often reflects an intrinsic judgement where the context of reception for corrections influences the salience of the sentencing option.

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Appendix A. Statutory Comparison of Robbery and Burglary Statutes in New York and New Jersey

I. ROBBERY

In both New York and New Jersey, a person is guilty of robbery in the first degree when, in the course of committing a theft, or in the immediate flight therefrom, he inflicts or threatens to inflict serious bodily injury, or uses force upon another person (in New York "causes" is substituted for "inflicts"). A person may also be found guilty of Robbery 1 when, in the course of committing a theft or in the immediate flight therefrom, he is either armed with a deadly weapon, or uses, or threatens to use, a dangerous instrument. In New Jersey, it is also provided that a person may be guilty of Robbery 1 if he attempts to kill anyone, or when he commits, or threatens to commit, any other "crime of the first or second degree." In other words, a person can be found guilty of Robbery 1 if he commits an act which would otherwise meet the statutory requirements of Robbery 2 or 3, but who, in the course of perpetration, commits or threatens to commit another crime which is considered of the first degree (such as assault or rape). In New York, provision is made for displaying what *appears* to be a pistol, revolver, shotgun, machine gun or other firearm, unless such weapon "was not a loaded weapon from which a shot, readily capable of producing death or other serious bodily injury, could be discharged." The New York Penal Code also states that prosecution for Robbery 1 shall not provide defense

to a prosecution for, or preclude a conviction of, Robbery 2 or Robbery 3 or any other crime. I suspect this is intended to ensure that prosecution for Robbery 1 and another offense arising from the same incident and committed by the same person is not defended on grounds of violation of the double jeopardy principle, which states that a person cannot be punished twice for the same crime.

II. BURGLARY

The burglary statutes in New York and New Jersey are most similar in their definitions of Burglary in the second degree. Unlike New York, New Jersey does not have a provision for Burglary 1. A person is guilty of Burglary 2 in both states, if, with the purpose to commit an offense therein, he enters or remains unlawfully in a building, and when he inflicts or threatens to inflict physical injury on anyone. In New York, this wording reads "causes" rather than "inflicts" (as in the burglary statute), and physical injury must be caused to anyone who "is not a participant in the crime." In New Jersey, the words "purposely, knowingly or recklessly" are added immediately prior to "inflicts." In both states, a person is guilty of Burglary 2 if, in addition to entering or remaining unlawfully in a building with the intent to commit an offense therein, he is armed with, or displays, a deadly weapon. In New Jersey, provision is explicitly extended to explosives. In New York, the use or threat of immediate use of a dangerous instrument while in a building unlawfully, or in the immediate flight therefrom, also constitutes a violation of Burglary 2. Finally, in New York, if the building involved is a dwelling, irrespective of any of the above mentioned conditions addressing the use or threatened use of force, a person may be found guilty of Burglary in the second degree.